GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:6165
ANSWERED ON:07.05.2002
EXPLOITING INFORMATION ON THE RICE GENOME
ALE NARENDRA

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether Indian bio-technologists are fully geared to exploit information on the rice genome;

(b) if so, the details thereof;

(c) whether any action plan has been chalked out by the Union Government on the rice genome; and

(d) if so, the details thereof and the funds allocated by the Government for the purpose during the Tenth Five Year Plan and during 2002-2003?

Answer

MINISTER OF STATE FOR SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT)

(a) & (b) Yes sir. The Department of Biotechnology in close collaboration with ICAR initiated the rice genome sequencing project. Advanced facilities have been set up at the Department of Plant Molecular Biology, University of Delhi South Campus and National Centre for Plant Biotechnology, IARI, New Delhi. Scientists have been trained. The Indian scientists have contributed to the preparation of a genetically anchored physical map of rice genome. By performing more than 100,000 sequencing reactions, data for 4.5 million bases have been generated and sequence data of 3.2 million bases submitted to the international data base. The data being generated worldwide, including Indian data are being exploited by our scientists for gene discovery and crop improvement.

(c) & (d) A complete sequence of rice genome will represent an enormous pool of information for rice improvement. Full application of this information will not be possible without understanding the biological functions encoded by the sequenced DNA. A parallel effort is under finalization on functional genomics. A workshop on Functional Genomics in Rice is being jointly organized shortly by DBT and ICAR. This will be attended by scientists of international fame, rice geneticists and breeders from IRRI, Manila as well as leading scientists from India. The recommendations of the workshop would help in developing a national programme on rice improvement. During the 10th Plan an allocation of Rs.1732.00 lakhs has been made for this programme and Rs. 584.00 lakhs has been allocated for the financial year 2002-2003.